We claim:

1. An expandable stent comprising a main body, wherein, when the stent is unexpanded, the main body comprises:

a plurality of expandable helical segments; and

a plurality of main body cylindrical elements having collinear cylindrical axes, the main body cylindrical elements being adjacent to one another and being attached to one another by the helical segments, each main body cylindrical element comprising:

a circumference that is substantially identical to that of an adjacent cylindrical element; and

a plurality of circumferential segments joined together by portions of the helical segments, thereby forming the cylindrical element, and the plurality of circumferential segments comprising a majority of the circumference of each cylindrical element.

2. The stent of claim 1, wherein the circumferential segments are comprised of a plurality of segments joined together to form a repeating pattern.

3. The stent of claim 1, wherein the repeating pattern comprises a square wave form having curved peaks and valleys.

4. The stent of claim 1, further comprising: a first and second endzone, wherein the first and second endzones straddle the main body of the stent.

5. The stent of claim 1, further comprising a plurality of struts connecting each endzone to the main body.

6. The stent of claim 5, wherein the endzones are each comprised of a plurality of rings.

7. The stent of claim 6, wherein the rings in each endzone are joined together by a plurality of struts.

8. The stent of claim 7, wherein the rings are comprised of a plurality of alternating linear and curved segments.

9. The stent of claim 8, wherein the linear segments form an angle greater than 0° relative to the cylindrical axis of the cylindrical elements.

10. An expandable stent comprising:

a first non-helical endzone;

a second non-helical endzone;

a generally cylindrically shaped main body having a cylindrical axis, the main body located between the first and second endzones and comprising:

a plurality of adjacent cylindrical main body elements having cylindrical axes collinear with the main body cylindrical axis, the adjacent cylindrical main body elements connected together and comprising:

a plurality of first expandable circumferential segments having a circumferential dimension; and

a plurality of second expandable circumferential segments having a circumferential dimension that is less than the first expandable segment circumferential dimension, each of the second expandable segments connected to two first expandable segments; and

wherein the cylindrical main body element are joined by connecting together second expandable circumferential segments of adjacent cylindrical main body elements in helical patterns, thereby forming a plurality of generally parallel helixes in the main body.

11. The stent of claim 10, wherein at least a portion of the stent is radiopaque.

12. The stent of claim 10, wherein each endzones is attached to the main body with a plurality of struts.

13. The stent of claim 10, wherein the stent is manufactured from a contiguous piece of material.

14. The stent of claim 10, further comprising two helical segments in the main body, wherein the helical segments are 180° apart.

15. The stent of claim 10 wherein each endzone comprises a ring formed from a plurality of contiguous segments.

16. The stent of claim 15, wherein the contiguous segments comprise linear and curved segments and wherein the linear and curved segments are joined together to form a repeating pattern.

17. The stent of claim 16, wherein the first expandable circumferential element comprises a plurality of linear and curved segments joined together to form a repeating pattern that resembles generally a square wave form having curved peaks and valleys.

18. The stent of claim 17, wherein the second expandable element comprises a plurality of linear and curved segments joined together and wherein the linear segments form an angle relative to the cylindrical axis of the stent that is approximately equal to the helical angle of at least one of the helixes in the main body.

19. A expandable stent that, when in an unexpanded state, comprises:

a cylindrical axis,

a cylindrical main body about the cylindrical axis, the main body comprising:

a plurality of first expandable helical segments having a first pitch; and

a plurality of second expandable helical segments having a second pitch that differs in value from the first pitch, at least one first helical segment crossing at least one second helical segment.

20. The stent of claim 19, wherein the second pitch has a value that is approximately twice that of the first pitch.

21. The stent of claim 19, further comprising a plurality of generally cylindrical shaped endzones having cylindrical axes that are collinear with the main body cylindrical axis.

22. The stent of claim 21, wherein the endzones have square outer edges.

23. The stent of 20, wherein the first helical segments are comprised of a plurality of circumferential segments joined together to form a helix.

24. The stent of claim 23, wherein the circumferential segments comprise a plurality of linear and curved segments joined together.

25. The stent of claim 24, wherein the linear segments lie at an angle between 0-45 degrees with respect to the cylindrical axis of the stent.

26. The stent of claim 23, wherein the second helical segments are comprised of a plurality of second circumferential elements joined together to form a second helix.

27. The stent of claim 23, wherein the stent is radiopaque.

28. A method for manufacturing a stent from a tubular element having a first and second end, the method comprising the steps of:

removing material from a first region adjacent to the first end to form a first endzone;

removing material from a second region adjacent to the second end to form a second endzone;

removing material from a middle region between the first and second regions to form a main body, the material removed from the middle region forming at least two generally parallel expandable helical segments in the middle region and a plurality of circumferential segments, the circumferential segments being adjacent to the expandable helical segments to form a plurality of main body cylindrical elements that are joined to one another by the expandable helical segments, thereby forming the main body.

29. An expandable stent comprising:

a plurality of first expandable segments;

a plurality of second expandable segments;

a plurality of adjacent cylindrical main body elements having collinear cylindrical axes, the cylindrical main body elements formed by connecting first expandable segments with second expandable;

a plurality of first helical segments having a pitch, the first helical segments formed by connecting first expandable segments from adjacent cylindrical elements with each other; and

a plurality of second helical segments formed by connecting second expandable segments from adjacent cylindrical elements with each other, wherein the second helixes have a pitch that differs from the pitch of the first helical segments.

30. The stent of claim 29, wherein the first and second expandable segments are joined together by a connecting segment.

31. The stent of claim 30, wherein the connecting segment comprises an H-shaped segment.

32. The stent of claim 29, further comprising a first and second endzone, the first and second endzone straddling the main body.

33. The stent of claim 29, wherein at least one helical segment forms an angle of approximately 40° relative to the cylindrical axis of the stent.

34. The stent of claim 29, wherein the first and second expandable segments have substantially identical shapes but are oriented differently.

35. The stent of claim 34, wherein the first and second expandable segments comprise linear segments connected by curved segments, wherein the linear segments of both the first and the second expandable segments lie at oblique angles relative to the cylindrical axis.

36. The stent of claim 34, wherein the oblique angles have the same absolute value.

37. The stent of claim 36, wherein the oblique angles have an absolute value of approximately 16°.

38. A method of manufacturing a stent from a tube having a first and second end portion and a middle portion, the method comprising:

removing material from the middle portion to form a set of first expandable helical segments each first expandable segment in the first set having a first pitch; and

removing material from the middle to form a set of second expandable helical segments, each second expandable segment in the second set having a second pitch that differs from the first pitch.

39. The method of claim 38, wherein the step of removing the material to form the first expandable helical segment results in the first helical segment having a repeating pattern.

40. The method of claim 39, wherein the step of removing the material to form the second expandable helical segment results in the second helical segment having repeating pattern that differs from that of the first helical segment.

41. The method of claim 38, further comprising:

removing material from the first end portion to form a circumferentially expandable first endzone; and

removing material from the second end portion to form a circumferentially expandable second end zone.

42. The method of claim 41, further comprising removing material adjacent to the first and second endzones to form a plurality of struts between the endzones and the middle portion.